

## **Digital Story Book Projects 101: How to Create and Implement Digital Storytelling Into Your Curriculum**

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Educators continually look for creative ways to engage students in the teaching material and with the advent of new media and various software programs, have many more options at their disposal. One powerful way to motivate students to understand an academic concept and to showcase their creativity is through digital storytelling. While there are many ways of describing digital storytelling, the majority of descriptions incorporate the use of multimedia tools, including graphics, audio, video, and animation to tell a story. Mellon (1999) defines digital storytelling as the “application of multimedia software techniques to the telling of stories” (p. 46).

Digital storytelling, which has recently become popular in the business community as a way of advertising, has its roots in education where teachers from all levels are employing the strategy in areas such as history, literature, writing, and science. Learning becomes student-centered as students conduct research, analyze and synthesize information, and creatively communicate their findings in a digital story. It also provides an interactive and stimulating learning activity. The digital story not only reflects each student’s understanding of the subject, but also allows for peer-to-peer learning which encourages personality and creativity. The purpose of this paper is to discuss the pedagogical importance of implementing digital storytelling into curriculum, the process of creating digital story book projects using Microsoft Windows Movie Maker 2.0 and the assessment technique used to grade the projects.

### **Digital Storytelling, Learning, and Retention**

Digital story book projects enable students to use technology to build a narrative presentation which demonstrates their understanding of an academic concept. Digital storytelling also encourages students to take part in cooperative learning. Students work in groups to gather and design the digital story book demonstrating their knowledge of academic content, such as the anatomy of the heart. In designing the digital story book, students use text, images, animation, and sound to illustrate an academic concept. Project activities enable students to apply technology and communication skills as they build their digital story book. Digital storytelling can engage and motivate students to understand difficult subject matter. Research suggests that students learn best when they are actively involved in the learning process. Regardless of the subject matter, students working in small groups tend to learn more of what is taught and retain it longer than when the same content is presented in other instructional formats (Davis, 1993).

Active learning involves activity-based learning experiences: input, process and output. As one form of active learning, digital storytelling can increase a student’s retention rate and comprehension of the material. According to Dale (1969), effectiveness of learning is correlated with the media involved in the learning experiences. Dale found that levels of effectiveness in learning are directly related to the participation of the student. *Dale’s Cone of Experience* is a model that reflects retention rates in students based on different methods of interacting with learning material. Porta (2000) uses Dale’s model to posit the importance of visualizing and story telling, as well as the importance of media.

The digital story book assignment uses the “teach others/immediate use” method of teaching which achieves an average retention rate of 90% according to Dale’s *Cone of Experience Model Research* illustrated in Figure 1 (Abilene Christian University, Learning Pyramid section, ¶ 1). In fact, anecdotal evidence from students who have completed the digital storytelling project in a college level freshmen Exercise Physiology course suggests a deeper comprehension of the content. Student’s reactions to the project included:

“I personally don’t learn well in a lecture based setting. This project worked really well for me because I could visually learn by the words and pictures being displayed and then hearing just made all of the information easier to understand.”

(A.B. Ferreira, personal communication, April 22, 2005).

“It gave me an opportunity to learn the subject material, and be creative at the same time.”

(E.L. Frank, personal communication, April 22, 2005).

“It gave me a chance to get out of the classroom and really dig into the information in a more exciting way.” (K.L. Hershey, personal communication, April 22, 2005).

### **Creating Digital Story Book Projects**

Digital storytelling projects can typically be completed within three weeks. Students form groups and select a topic related to an academic concept or subject area that is being reviewed. The students begin by preparing a storyboard for their digital storytelling project. Storyboards are graphical and text representations of all the information that goes into the digital storytelling project. It is usually a hand-drawn rough draft that includes the graphic file (i.e. a photo, clip art, etc.) being used, how branching occurs, and the descriptions/filenames of other multimedia they plan to use (i.e. video clips, sound bites, etc).

In other words, a storyboard is like a marketing tool for the digital storytelling project, highlighting the content of the project. The story board should be reviewed by the instructor to be sure that the content has been planned and is accurate. Then the group writes a script and practices reading it for the narration of the digital storytelling project. The next step consists of the group gathering pictures and videos to insert into their projects. Finally, the group produces their digital storytelling project using Microsoft Movie Maker 2.0 and adds the narration.

### **Assessment**

Grading for the Digital Story Book Projects employs a 25 point grading rubric. All members of the group receive the same grade as determined from the grading rubric sheet according to the criteria presented in Figure 2.

### **Conclusion**

Digital storytelling projects are a powerful way to motivate students to understand an academic concept while building their narrative presentation. The method allows for peer-to-peer learning and also fosters an increased ownership in learning the course material. Digital storytelling also adds a practical experience that supplements the lecture materials. The potential for increased retention rates and comprehension of course material is found in digital storytelling projects as they promote cooperative and active learning.



Figure 1: Dale's Learning Pyramid (Abilene Christian University, Adams Center for Teaching Excellence)

**Project Name:**

Assessment Criteria	Rubric	Score
Content: Material	Extremely thorough; displays evidence of extensive research; presents accurate information	1- 5
Content: Organization	Material is extremely well organized; presentation was clearly summarized in student's own words; format is logical and easy to follow	1-5
Media Resources	Method of utilizing media is very effective	1-5
Effective	Captures the interest of the audience and presents a clear message	1-5
Presentation	Clever, creative and appealing delivery of required components; material delivered in an engaging and original manner	1-5
		Total:

Figure 2: Digital Story Books Grading Rubric

## References

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